

## SECTION D: PORT STATE CONTROL

**CHAPTER 6: PROCEDURES APPLICABLE TO FOREIGN TANK VESSELS****A. GENERAL PROVISIONS**

Under Coast Guard policy set forth in the "M" Business Plan (COMDTINST 16000.26) and as required by 46 U.S.C. 3714, each foreign tank vessel shall undergo a full safety examination at its initial U.S. port of call and at least annually thereafter. This annual examination is referred to as a Tank Vessel Exam (TVE). 46 U. S. C. 3711 requires the Coast Guard to issue a Letter of Compliance to each foreign tank vessel that is valid for 24 months. The Coast Guard has determined that a TVE letter will be issued to tank vessels carrying oil and oil products every 12 months and a Letter of Compliance (LOC) will be issued to chemical and gas carriers every 24 months with an annual mid-period exam. Reexaminations shall be conducted in accordance with the Targeting Procedures in MSM II-D4.

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## B. COMPLIANCE WITH U.S. REGULATIONS

In addition to the Pollution Prevention Regulations (33 Code of Federal Regulations (CFR) parts 151, 155-157, and 159); the Navigation Safety Regulations (33 CFR 164); and the Bulk Liquid, Liquefied Gas, or Compressed Gas Hazardous Materials Regulations (46 CFR 153-154), foreign tank vessels operating in U.S. waters must comply with 46 CFR 35.01-1 and the cargo venting and handling system requirements in 46 CFR 35.30 and 35.35. Title 46 CFR 30.01-5(e)(2) also requires foreign flag tank vessels operating in U.S. waters to comply with 46 CFR 32.53 Inert Gas Systems, 46 CFR 34-05-5(a)(2) Foam Systems, and 46 CFR Part 39 Vapor Control Systems. For additional guidance on the application of 33 CFR 157, refer to Navigation Vessel Inspection Circular (NVIC) 10-94.

**1. Inert Gas Systems (IGS)**

The IGS requirement in 46 CFR 32.53-1 applies to all existing (46 USC 3701) foreign flag crude oil tankers and new product carriers. Liquefied gas carriers and vessels that carry ONLY grade E cargo at or below a temperature lower than 5 degrees Celsius below its flash point are exempted.

- a. Existing product tankers between 20,000 and 40,000 deadweight tons (DWT) are not required to have IGS unless tank washing machines with a capacity of more than 60 cubic meters per hour (high capacity tank washing machines) are installed. Because of differing application dates, the Coast Guard initially assumed that a foreign tanker that carried only products in U.S. trade was a product tanker. Now that all applicability dates are past, closer attention should be given to identification of foreign vessels as crude oil or product tankers under 46 CFR 32.53. The Form B supplement to the International Oil Pollution Prevention Convention (IOPP) Certificate should be consulted to verify that tankers carrying products without IGS are designated as product tankers only.
- b. Both U.S. regulations and international conventions permit exemptions from the inert gas requirements for existing crude tankers less than 40,000 DWT not fitted with high capacity tank washing machines. Only Commandant (G-MSO) can grant exemptions for foreign flag vessels operating in U.S. waters. For foreign vessels, flag state exemptions must be submitted with a request for a U.S. exemption. To date, no exemptions have been granted for vessels operating in U.S. waters. The intent is to assure that IGS are installed on foreign tank vessels to the same degree that they would be installed on U.S. tank vessels.

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- c. IGS on foreign vessels are usually built to International Convention for the Safety of Life at Sea (SOLAS) Regulation II-2/62 rather than U.S. regulations. It is not the intent that IGS on foreign vessels meet every detail of 46 CFR 32.53-10 through 32.53-85. IGS meeting SOLAS Regulation II-2/62 should be accepted on foreign tank vessels as equivalent to U.S. regulations. Inspection of IGS to verify compliance with either SOLAS or U.S. regulations should be conducted as part of the annual examination or biennial Letter of Compliance (LOC) examination.

## 2. Vapor Control Systems (VCS)

To transfer vapors of a flammable or combustible cargo with a facility regulated under Title 33 CFR Part 154, a vessel's Letter of Compliance (LOC) must be endorsed by a Coast Guard Marine Safety Office stating the VCS is approved by the Marine Safety Center under 46 CFR Part 39 (see 46 CFR 39.10-13(e)). Details on how the LOC endorsement is obtained are in 46 CFR 39.10-13(d). Certification by the flag state or classification society may be presented to the Officer in Charge, Marine Inspection (OCMI) to obtain the LOC endorsement; the certification must include the following items for which the VCS was evaluated.

- a. Vessel identification (name, classification or official number, call sign, flag).
- b. A statement that the vessel's vapor control system was reviewed and meets the requirements of 46 CFR Part 39.
- c. A statement that the inert gas manual has been amended in accordance with 46 CFR 32.53-85(b), if applicable.
- d. A statement that the oil transfer procedures has been amended in accordance with 33 CFR 155.750(d).
- e. The cargo tanks to which the certification applies.
- f. The maximum allowable liquid transfer rate (cubic meters per hour).
- g. The maximum allowable vapor density.
- h. A list of cargoes for which the VCS was reviewed.

**NOTE:** The U.S. Coast Guard has not reviewed all the cargoes being shipped in bulk for VCS requirements. The current list of cargoes that have been assigned a VCS category may be obtained by contacting the Marine Safety Center.

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- 3. Foam Systems** The requirement for foam systems in 46 CFR 34-05-5(a)(2) are applicable to new foreign flag tankers of 20,000 DWT and over. "New" is defined in 46 U.S.C. 3701. No other section of 46 CFR 34.05 specifically applies to foreign vessels.
- a. The intent of 46 CFR 30.01-5(e)(2) is to require deck foam systems on new foreign tankers in U.S. trade. Such a foam system should meet the details of SOLAS, not U.S. regulations.
  - b. The foam concentrate should be suitable for the cargoes carried. Water miscible products, such as many alcohols, ketones, esters, ethers, amines, aldehydes, acids, and anhydrides tend to destroy regular foam by dissolving the water from the foam blanket. For these products, special "polar solvent" or "alcohol" foams must be used. Manufacturers' literature on the foam concentrate should be requested if there is any question on compatibility.
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- 4 Oil-Bulk-Ore (OBO) Vessel Change of Status; Conversion to a Non-Tank Vessel** The definition of "tank vessel" in 46 U.S.C. 2101(39) includes all vessels which are constructed or adapted to carry, or that carry, oil or hazardous material in bulk as cargo or cargo residue. Therefore, any vessel, including an Oil-Bulk-Ore (OBO) vessel, which is constructed or adapted to carry oil or hazardous materials in bulk as cargo, is considered a tank vessel even if it does not carry oil or hazardous material when trading in the U.S. For business reasons, owners of these types of vessels may wish to remove the vessel from tank vessel status.
- Vessel Change of Status
- a. Vessel Change of Status. Following the decision to remove a vessel from the bulk oil or hazardous material trade, the vessel's owner should:
    - (1) Request from its classification society or flag state that its IOPP Certificate, along with the Form A Supplement, be reissued to indicate that the vessel does not carry oil in bulk as cargo.
    - (2) Apply to the Coast Guard National Pollution Funds Center if the owner desires to have the Certificate of Financial Responsibility (COFR) revised to reflect non-tank vessel status.

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- Enforcement Action
- b. Enforcement Action. During examinations and reexaminations, the boarding team shall verify the vessel's documents properly indicate the "non-tank vessel" status. They shall update the Marine Safety Information System (MSIS) Vessel File List of Documents (VFLD) to indicate the change in status from a tank vessel to non-tank vessel.
    - (1) If a vessel's certificates indicate "non-tank vessel" status, but cargo oil or hazardous materials are found to be carried in bulk on board, the vessel will not be allowed to transfer cargo oil. The vessel is in violation of its IOPP Certificate and shall be detained until enforcement actions are completed as provided in Volume I, Chapter 4.I.1.e of this manual. Additionally, enforcement actions shall be initiated pursuant to a COFR violation as provided in Volume I, Chapter 4.I.1.d. of this manual.

5. **High-Velocity Pressure/Vacuum (P/V) Valves** For high- velocity P/V valves installed aboard foreign tankers, the requirements of 46 CFR 162.017-3(n) have been interpreted to allow this type of valve without a flame screen on the pressure discharge side. A foreign vessel must have evidence of acceptance of such installed valves, both from its flag administration and a recognized classification society, available on board for examination. The valves shall be properly maintained and in good, serviceable condition at all times. They are acceptable because:
- a. High vapor velocities in the pressure discharge piping preclude the passage of flame, thus making the flame screen unnecessary; and
  - b. Installation of a flame screen would defeat the purpose of a high velocity P/V valve by retarding the flow of vapor to the atmosphere.

**NOTE:** All other openings to atmosphere on such valves must have flame screens as prescribed in the regulations. There is no relaxation of the flame screen requirement for P/V valves that are not of the high-velocity type.

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## C. CONDUCTING TANK VESSEL EXAMINATIONS

- 1. Scheduling** Using the targeting procedures described in MSM II-D4, Officers in Charge, Marine Inspection (OCMI), or Captains of the Port (COTP) shall identify high priority vessels entering their zones. After identifying those vessels to be boarded, the examinations will be scheduled using the MSIS Port Safety Vessel Scheduler (PSVS) product set and a boarding team will be assigned. Boarding teams assigned to conduct Priority I boardings, annual Tank Vessel Exams (TVE) or biennial LOC exams shall include a senior marine inspector. Other boarding teams should include a marine inspector if resources permit. Teams should also be scheduled to monitor cargo transfers if resources permit.

Annual  
Examinations of  
Letter of  
Compliance  
Vessels

- a. Annual Examinations of Letter of Compliance Vessels. Chemical tankers are issued a LOC valid for two years with an annual mid-period examination required to be conducted after 1 year. There is no requirement that owners or operators request the required examinations. The law places the responsibility for initiating this examination upon the Coast Guard. However, for scheduling purposes, it is in the vessel's owner/operator's best interest to schedule a required examination at least 7 days in advance. Upon receiving the required advance notice of arrival from a LOC vessel, the OCMI/COTP must check the status of the vessel's documents and boarding history to ensure that a TVE, if due, is carried out. The annual safety examinations of LOC vessels should coincide with the initial and biennial examinations for an LOC with cargo endorsement, when these are necessary.

Tank Vessel  
Exams and Letter  
of Compliance  
Exams

- b. Tank Vessel Exams and Letter of Compliance Exams (see 46 CFR 2.01-6 for regulatory definitions). 46 USC 3714 requires foreign oil and chemical tank vessels, as defined in 46 USC 2101, to undergo annual examinations. Under the targeted boarding program, tankers overdue for an annual TVE or biennial LOC are Priority II boardings. To avoid delays to cargo operations, tanker owners often request an examination prior to the expiration date of their TVE or LOC. In some cases, these requests have been denied due to Coast Guard resource constraints and the tanker's operations subsequently delayed on the next voyage because the TVE or LOC was expired. To avoid delays, the Officer in Charge Marine Inspection (OCMI) or COTP is encouraged to complete TVEs and LOCs when requested within three months of their expiration date. At the discretion of, and with the prior approval from, the local OCMI/COTP, tankers with expired TVEs or LOCs (renewal or midperiod) that are not more than three months past due, and with no indications that the vessel is not in compliance with applicable laws and regulations, should not be restricted from commencing cargo operations prior to an examination. However, the TVE or LOC must be completed prior to departure. Vessels that are more than three months beyond the due date of their TVE or LOC will continue to be boarded prior to commencement of cargo operations. Vessel owners, operators and agents are required by 46 CFR 153.809(a) or 46 CFR 154.150(b) to provide an advance notice of arrival at least 7 days in advance, to advise the OCMI/COTP that the vessel is due for either a TVE or an LOC.

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Advance Notice of  
Arrival from LOC  
Vessels

- c. Advance Notice of Arrival from LOC Vessels (33 CFR 160.201, 160.211). Vessels should provide an advance notice of arrival prior to entering each U.S. port. If the vessel departs one U.S. port and enters another, an advance notice is required, even if the ports are in the same COTP zone. The MSIS data on all LOC vessels entering port and carrying bulk dangerous cargoes should be checked to ascertain the validity of its LOC and any International Maritime Organizations (IMO) certificates. The Vessel File List of Documents (VFLD) product set lists the vessel's current IMO Certificate of Fitness (COF), LOC (and Subchapter O Endorsement if applicable), and the relevant expiration dates. If a particular vessel does not appear in MSIS, contact the Marine Safety Center to determine the vessel's status. The vessel's ISM certificates should also be verified.

Marine Chemist  
Certification of  
Confined Spaces

- d. Marine Chemist Certification of Confined Spaces. During annual examinations and biennial LOC examinations, entry into pump rooms may be anticipated as a normal aspect of the examination. For vessels carrying Subchapter O products or Subchapter D products with an established Threshold Limit Value (TLV), a Marine Chemist Certificate is required prior to entering the pump room. A marine chemist certificate is required prior to entering the ballast tank of any tanker. To minimize delays and ensure the safety of boarding personnel, the OCM/COTP should ensure the vessel's master, agent or owner is advised as soon as possible after receiving an advance notice of arrival that a Marine Chemist Certificate will be required prior to entry of Coast Guard personnel into these spaces. Guidance on confined space entry may be found in Volume I, Chapter 10, of this manual.

- 2. Pre-Boarding Preparations** Prior to arrival at the vessel, the boarding team must review the available MSIS data and regulations to determine the required examination activities for the boarding. Refer to NVIC 10-94 for guidance on double hull requirements (33 CFR 157). Extract the basic vessel information from the MSIS history for use during the visit to the vessel (including: name, flag, call sign, tonnage, build date, boarding history, recent spills, outstanding discrepancies, status of certificates and documents, etc). MSIS may indicate that certain information must be confirmed or updated during the boarding to keep MSIS records current. It may also indicate outstanding discrepancies that should be checked.

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MSIS Data for LOC  
Tank Vessels

- a. MSIS Data for LOC Tank Vessels. MSIS Data on LOC tankers should be checked in the following product sets prior to the boarding:
- (1) VFLD. For all liquefied gas carriers and non-signatory chemical carriers, the Marine Safety Center will enter the issue and expiration dates of IMO Certificates and addenda, which have been accepted and will load the Subchapter O Endorsement (SOE) in MSIS. The date which the Marine Safety Center loaded the SOE is used as the issue date in VFLD, and the status is marked as "AMENDED." For signatory chemical carriers, a port office may enter the issue and expiration dates of IMO certificates and addenda; note that these vessels are not issued a SOE.

**NOTE:** Only the Marine Safety Center is authorized to make VFLD entries for IMO Certificates of Fitness.

- (2) MISOE. Port offices can access a vessel's Subchapter O Endorsement using the retrieve function and the vessel's VIN (-MISOE, R, VIN=L0000000).
- (3) CTVIS. The Marine Safety Center has developed a document called the "Chemical Tank Vessel Information Sheet." This document includes much of the general information and guidance that had been included in the previously required SOE document, and serves as a means for the Coast Guard to communicate with foreign chemical tank vessel owners and operators. Although not required, it is highly recommended this document be kept on board a foreign chemical tank vessel for reference and informational purposes. The CTVIS may be accessed from MSIS in the same manner as the SOE using the retrieve function and a generic VIN (-MISOE,R,VIN=CG050741) or via the internet by linking to it through the MSC homepage at [www.uscg.mil/hq/msc](http://www.uscg.mil/hq/msc).

**3. Approaching the Vessel** As you approach the vessel, look for the following:

- a. Cargo transfer operations;
- b. The general condition of the facility (or other vessel) adjacent to the vessel being boarded;
- c. Evidence of hot work in the vicinity of the transfer;
- d. A red flag or red light, and warning signs;
- e. The general condition of the vessel;



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- f. The location of the vessel's load line (if the vessel is trim and the load line mark is submerged, the OCMI or COTP should be notified);
- g. The vessel's draft readings;
- h. Evidence of cargo leaks or pollution;
- i. Suitability of the moorings and the gangway for the tide, current, and weather conditions expected during the transfer period; and
- j. General evidence of unsafe conditions.

**4. Boarding the Vessel**

Upon boarding the vessel, identify yourself as a representative of the U.S. Coast Guard, Marine Safety Office, Marine Safety Activity, Marine Inspection Office, or Captain of the Port Office, as appropriate, and ask to see the master or chief mate (or the senior deck officer on duty). Introduce yourself and advise that the purpose of this visit is to conduct either an annual TVE, biennial LOC examination or a mid-period.

- a. When conducting a TVE or LOC examination, advise the master that the examination will consist of a document check, a general examination, operational testing of specific equipment (i.e. steering, firemain, and navigation equipment as a minimum) and emergency drills. If applicable it may also include a follow-up on any outstanding discrepancies.
- b. When conducting a mid-period, advise the master that the examination will consist of a document check and a general examination as a minimum. If applicable it may also include a follow-up on any outstanding discrepancies.

In either event, ensure that the master understands that the boarding team reserves the right to expand the examination if "clear grounds" are established to doubt the validity of the vessel's certificates (See MSM II-D1.K.). Supplemental check off sheets are provided for use during annual examinations and biennial LOC examinations aboard vessels equipped with an IGS or Vapor Containment System (VCS). When completing the checkoff lists, make adequate notes and comments so that all discrepancies noted are easily understood by reviewing officials, vessel personnel and the hearing officer (if a violation report is filed). Remember that the checkoff list is intended as a job-aide, not a "cook book". The depth and scope of the examination must be determined by the boarding team based on their observations. A satisfactory check may be accomplished simply by sighting a piece of equipment in some cases, while in others it may be necessary to look, question or test more closely.

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- 5. Examination of Documents** Sight and review pertinent vessel documents, certificates, and officers' licenses. Make sure they are current. Determine whether the vessel's hull, deck, internal structure, cargo hatches, piping or required equipment has been damaged or undergone repair since the last Coast Guard examination. Also determine whether any outstanding conditions of class exist. If available, review the outstanding conditions of class. Check to see if the vessel is overdue for drydocking or repair.

If after boarding it is determined from records aboard a vessel that the vessel is not due for an examination, or that the vessel's boarding priority is lower than MSIS records indicate, advise the vessel's officer that you will limit your examination to a less extensive reexamination. Do not leave the vessel without at least completing a cursory document check and a general "walk through" examination to ensure no obvious deficiencies exist.

**The document check should include the following as appropriate:**

<input type="checkbox"/> Certificate of Registry	<input type="checkbox"/> Log Entries
<input type="checkbox"/> Classification Society Certificate	<input type="checkbox"/> Cargo Information Cards
<input type="checkbox"/> IGS, COW, SBT, CBT Operations Manuals	<input type="checkbox"/> Safety Construction Certificate
<input type="checkbox"/> IGS, COW, SBT, CBT Approval Letters	<input type="checkbox"/> Safety Equipment Certificate
<input type="checkbox"/> IGS Record Book	<input type="checkbox"/> Safety Radiotelegraphy Certificate
<input type="checkbox"/> Oil Record Book	<input type="checkbox"/> Cargo Record Book
<input type="checkbox"/> Safety Radiotelephone Certificate	<input type="checkbox"/> Shipboard Oil Pollution Emergency Plan
<input type="checkbox"/> Load Line Certificate	<input type="checkbox"/> Oil Transfer Procedures
<input type="checkbox"/> International Oil Pollution Prevention Certificate or equivalent	<input type="checkbox"/> Letter of Compliance Card w/Sub O Endorsement
<input type="checkbox"/> Records of Hose & Piping Tests	<input type="checkbox"/> Tonnage Certificate
<input type="checkbox"/> Certificate of Financial Responsibility	<input type="checkbox"/> Approved Procedures & Arrangements Manual
<input type="checkbox"/> Safe Manning Document	<input type="checkbox"/> Officers' Licenses
<input type="checkbox"/> Vessel crew list	<input type="checkbox"/> Cargo Location Plan
<input type="checkbox"/> Cargo Manifest	<input type="checkbox"/> Safety Management Certificate
<input type="checkbox"/> Document of Compliance	<input type="checkbox"/> IMO Certificate of Fitness
<input type="checkbox"/> Garbage Management Plan	<input type="checkbox"/> International NLS Certificate

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## IOPP Certificate

- a. IOPP Certificate. Review the IOPP Certificate. Ensure that for countries which are not signatory to the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978 (MARPOL 73/78), the equivalent documentation is Coast Guard acceptable. Check the Oil Record Book to ensure that it has been maintained properly. Navigation Vessel Inspection Circulars (NVIC) 8-83 and 9-86 provide additional guidance for MARPOL 73/78 enforcement.

## Safe Manning Document

- b. Safe Manning Document. SOLAS, Chapter V, Regulation 13, requires all ships of 500 gross tons and more on international voyages to be issued a safe manning document. This document is to state what the flag state administration considers to be the minimum complement necessary to ensure the vessel is sufficiently and efficiently manned from the point of view of safety. There is no standard format for a safe manning document, though some guidance on the elements to be included in the document can be found in IMO Resolution A.481(XII), Annex 1, and guidance to be taken into account in determining safe manning can be found in Annex 2 of that IMO resolution. However, there are no specific manning scales which can be considered as an internationally agreed standard for assessing the adequacy of the crew complement on a seagoing ship. Therefore, the boarding team must use good judgement in questioning a flag state's determination of the adequacy of a vessel's manning level.
  - (1) Every foreign flag vessel of 500 gross tons or more visiting a U.S. port should have on board a safe manning document issued by the vessel's flag state administration. If the document is in a foreign language, an English translation is to be available. The document should contain the following information:
    - (a) Identification of the ship;
    - (b) A table showing the numbers and grades of personnel required to be carried, together with any special conditions or limitations based on the particulars of the ship or the nature of the service upon which it is engaged; and
    - (c) The date of issue and expiration along with a signature for and the seal of the administration.

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- (2) In the event a safe manning document is available, the flag state is a party to SOLAS, the information in the document is complete, and the required crew complement is consistent with normal expectations for a ship of its size and service, no further action is required with respect to the manning document itself. Attention must then be directed to determining that the crew is appropriately certificated under the STCW convention (as discussed below).

**NOTE:** For tankers, the provisions of 33 CFR 164.13 concerning manned engine rooms and two licensed officers on the bridge will be relevant to a determination of whether the vessel is properly manned. Additionally, when promulgated, the regulations implementing the provisions of 46 U.S.C. 9101(a) will also be relevant.

- c. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 1995 (STCW 95). Refer to the guidance in Ch. D.5.C.6.c of this Volume for guidance.
- d. Document Checks Aboard LOC Vessels. At each TVE, biennial LOC examination and mid-period of a LOC vessel check the following:
- (1) Examine the LOC card and the attached Subchapter O Endorsement (for liquefied gas carriers and non-signatory chemical carriers);
  - (2) Ascertain that any IMO Certificates listed in the Subchapter O Endorsement (for liquefied gas carriers and non-signatory chemical carriers) are on board the vessel and are valid;
  - (3) Check the LOC Examination Record for outstanding deficiencies;
  - (4) Check the cargo manifest against the cargoes authorized by the IMO Certificate of Fitness and/or the Subchapter O Endorsement (for liquefied gas carriers and non-signatory chemical carriers). The Subchapter O Endorsement will refer to the list of cargoes contained in the IMO Certificate of Fitness and may restrict carriage of certain listed cargoes.
  - (5) Ensure that any special operating instructions listed in the Subchapter O Endorsement or the IMO Certificate are being observed;

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- (6) Check the cargo manifest and tank arrangement (or the cargo location plan, if available) for compatibility of adjacent cargoes or cargoes in tanks joined by common piping or vent headers. Cargoes must be stowed in accordance with 46 CFR 150, Subpart A - Compatibility of Cargoes. If the master claims an authorized exception to the compatibility chart, he or she must produce a copy of the letter or message from the Coast Guard granting the exception as required by 46 CFR 150.160; and
- (7) Determine if the foam, dry chemical, or carbon dioxide firefighting systems have been serviced within the last 2 years.

#### 6. General Examination

During annual TVE, biennial LOC examinations, and mid-periods, conduct a general "walk through" examination of the vessel. The general examination should include observation of required equipment on deck, in the engine room, and in after steering. Verify the adequacy, maintenance, and operation of firefighting, pollution prevention, and other equipment required by regulations. Look for obvious safety problems.

#### Navigation Safety Equipment Check

- a. Navigation Safety Equipment Check. During annual TVE examinations, biennial LOC examinations, and mid-periods, ask if all equipment was working properly during the last voyage. If equipment is not working, determine when repairs will be made. If a major piece of electronic equipment (like the radar or Automatic Radar Plotting Aid (ARPA)) is not operational, the OCMI/COTP should be contacted for instructions.
- ➔ Conduct a thorough check of the bridge and navigation spaces for compliance with the Navigation Safety Regulations (33 CFR 164). Meet with the second mate, if available, and ask to have the electronic equipment energized if cargo operations permit.

**SAFETY NOTE: Energizing Equipment During Cargo Operations Could Pose A Safety Hazard.**

- ➔ Check the complete list of navigation safety items, paying special attention to the extra requirements for vessels over 10,000 gross tons. Check or test the equipment paying particular attention to the following:

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<i>Position Fixing Device</i>	(1)	Position Fixing Device (LORAN C, Satellite Navigation System (SATNAV) or GPS). Energize the equipment. Check that the receiver is able to lock on and track the signals for these readings. For SATNAV, see that the mate is able to set up the receiver to obtain the vessel's position on the next usable satellite pass.
<i>Automatic Radar Plotting Aid (ARPA)</i>	(1)	Automatic Radar Plotting Aid (ARPA). Ensure that each vessel over 10,000 gross tons is equipped with an ARPA as required by 33 CFR 164.37. Take the time to spot targets on the screen and to follow a vessel's movement across the screen.
<i>Echo Depth Sounder and Recorder</i>	(3)	Echo Depth Sounder and Recorder. Energize the equipment to see if it gives a reading. The recorder will show recent performance if it was operational as the vessel entered the harbor.
<i>Marine Radar</i>	(4)	Marine Radar. Energize the radar and note targets moving across the screen or pick out shore objects on the radar if possible. Check both radars on vessels over 10,000 gross tons, including true north stabilization features.
<i>Vessel FM Radio</i>	(5)	Vessel FM Radio. Ensure that the vessel has the capability to use VHF Channels 13, 16 and 22 and that the radios are in working order. A radio check is not necessary unless you suspect that the radios do not work.
<i>Magnetic Steering Compass</i>	(6)	Magnetic Steering Compass. Check to see if there is a deviation table posted near the magnetic compass. The table should be derived from swinging the vessel and there should be a comparison log showing entries of the differences between the vessel's true, gyro and magnetic north compass readings. The magnetic compass can vary depending on the type of cargo loaded and it may show differences from voyage to voyage. Check the emergency steering compass periscope, if fitted, to ensure that you can see the card. Check compass illumination.

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- Gyrocompass* (7) Gyrocompass. Check the reading on the steering gyrocompass against the repeaters on the bridge wings, the second steering station and the steering engine room. Be sure to ask if the gyro is energized as they are sometimes secured during an extended port stay. Look at the comparison log for any fluctuations between the gyro, magnetic and true readings.
- Rudder Angle Indicator* (8) Rudder Angle Indicator. Check the rudder angle indicator in all locations such as main steering station, bridge wings, and emergency steering station. They should all have the same reading.
- Charts* (9) Charts. Check charts of the areas to be transited within the COTP zone to see if they are maintained up-to-date. Use a list of the most recent Defense Mapping Agency (DMA) notice to mariners changes to verify that a chart is corrected up-to-date. Foreign charts are acceptable if they contain similar information and are of a large enough scale to permit safe navigation. NVIC 9-83 provides additional guidance regarding application of the requirements for carriage of charts.
- Publications* (10) Publications. Vessels must carry a currently corrected copy of, or applicable currently corrected extract from, the U.S. navigation publications (or foreign equivalents) listed in 33 CFR 164.33. Further enforcement guidance is provided in NVIC 9-83. Publications required include:
- (a) U.S. Coast Pilot.
  - (b) Coast Guard Light List.
  - (c) Tide Tables.
  - (d) Tidal Current Tables or River Current Publication.
- Relative Motion Plotting Equipment* (11) Relative Motion Plotting Equipment. While the ARPA may do some of the relative motion plotting for the vessel personnel, the vessel still must have equipment for manual plotting of relative motion. Normally this equipment consists of maneuvering boards, triangles, parallel rules, etc.

**INSPECTION GUIDANCE:** During mid-periods, conduct a brief check of the bridge and navigation spaces for compliance with selected items from the Navigation Safety Regulations (33 CFR 164). Do not check the entire list of navigation safety requirements or conduct operational testing of the equipment unless "clear grounds" exist to doubt the vessel's compliance with the navigation safety regulations. Normally, a check of three or four of the items listed above is sufficient.

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- ILO 147
- b. ILO 147. During TVE, biennial LOC examinations, and mid-periods, be alert for especially hazardous or unsanitary conditions. We cannot hold other countries to the same standards we expect here in the U.S. However, we should be alert to those conditions that are blatantly unsafe. Labor or pay complaints should be brought to the attention of the Department of Labor by contacting G-MOC. Where intervention authority is lacking, local humanitarian or religious organizations (i.e. Seamen's Church Society) may be able to assist in correcting unsanitary practices or in assisting crewmembers. See COMDINST 16711.12 for further guidance.
- Structural Integrity
- c. Structural Integrity. During annual TVE examinations, biennial LOC examinations, and mid-periods, look for evidence of long term neglect, wastage, corrosion, cracking, pitting or casualty damage. The presence on deck of plating, sections of piping, or an excessive number of oxyacetylene tanks may indicate unauthorized repairs or other problems. Look for recent burn marks from welding. Temporary repairs including cement boxes, epoxy patches, postage stamp inserts and drill stopped cracks may indicate problems. Each situation must be evaluated to determine whether the temporary repair is adequate or whether the vessel should be detained until permanent repairs are made.
- Oil Tankers Over 10 Years Old*
- (1) Oil Tankers Over 10 Years Old. 46 USC 3714 (a)(2) requires the Coast Guard to assess the structural integrity of the hull of all tankers over 10 years of age. To satisfy this statutory requirement on foreign oil tankers in this age category, marine inspectors have been required to enter a ballast tank during the annual examination since MVI policy letter 25-90 went into effect. Examination of ballast tanks during TVE's by USCG personnel is no longer mandatory. The annual examination will still endeavor to determine the vessel's overall structural condition and assess the quality of the vessel's maintenance program. In addition, senior marine inspectors will review the most recent copy of the classification society's status report (conditions of class), dry dock survey reports and other class society surveys as appropriate. This new policy applies to all foreign oil tankers. Under no circumstances should ballast tanks be entered on LNG, LPG or chemical tankers.



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*Verification  
Examination of  
Structural Integrity*

(2) Verification Examination of Structural Integrity. 46 USC 3714 (a)(2) comes from the Port and Tanker Safety Act of 1978. It is specific in identifying tankers over 10 years old as requiring an assessment of structural integrity. The Act does not specify the manner in which the assessment is to be carried out. MVI policy letter 25-90 made entry into ballast tanks mandatory due to the poor performance of other parties of the safety net in this regard. In recent years, this trend has significantly decreased, as the performance of class societies has vastly improved. The number of tank vessel detentions has decreased. The value of entering ballast tanks during a port State control examination is questionable. The marine chemist testing of the atmosphere and brief visual evaluation does not mitigate the physical hazards of coatings or muck, nor does it remove the biologic growth exposure risk.

*IMO Resolution  
A.744(18)*

(3) IMO Resolution A.744(18) recommends owners and operators of single-hull tank vessels to initiate an enhanced survey program (ESP) at the next scheduled dry-dock examination occurring on or after November 27, 1996. These requirements can be found in 33 CFR 157.430. Reports of structural surveys, condition evaluation reports, thickness measurement reports, and survey planning documents, if available, should be reviewed during the annual examination to assess the structural integrity of the hull.

*46 USC 3714(a)(2)*

(4) In order to comply with the provisions of 46 USC 3714(a)(2), every effort shall be made to verify the structural integrity of the vessel by external examination. This shall include deck, sideshell, external piping; visual checks through tank openings and pump room condition and the condition of other spaces. In the event that entry into a ballast tank is deemed necessary, OCMI's should arrange for a joint tank entry with the classification society. Proper confined space entry procedures should be followed. Shipping agents should be responsible for the attendance of a marine chemist to test and certify the tank as "safe for workers" prior to the entry of Coast Guard personnel

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Senior marine inspectors (SMI) will comply with Volume I, Chapter 10, of this manual during all ballast tank entry examinations. If possible, the SMI should request the marine chemist to note if testing indicated any presence of hydrocarbon in tanks tested. This information is valuable because it may indicate if a structural problem exists which has led to leaking from cargo tanks into adjoining ballast tanks. In addition, inspectors will normally request that a vessel representative attend the ballast tank examination. Most marine chemists will require that continuous forced ventilation of fresh air be maintained in the tank from the time of certification until the conclusion of all tank entries. Inspectors should verify that this and any other stipulations on the marine chemist's certificate have been followed prior to their entry into the tank. Depending on the circumstances, inspectors may require that additional measures be provided by the vessel during tank entry such as having vessel crewmen standing by the tank entrance with a lifeline, rescue harness and/or self-contained breathing apparatus.

- (5) In all cases where significant structural problems are detected, the vessel's classification society should be notified. In addition, control action may be initiated as discussed in Chapter D2 of this volume. The OCM/COTP should remain involved until the problem is resolved. If the vessel is permitted to depart port to make repairs overseas, written confirmation for the repairs from the classification society and/or flag administration will normally be required before the vessel is allowed to return to U.S. ports. Vessels of Particular Interest (VPI) entries in MSIS are to be used to identify vessels that have outstanding structural deficiencies.

Lifesaving Equipment Check      d. Lifesaving Equipment Check. During annual TVE, biennial LOC examinations, and mid-periods, spot-check the vessel's lifesaving equipment. Observe the condition of the lifeboats paying particular attention to the hull and davits. Liferaft stowage and missing weak links are common problems which can usually be corrected quickly without detaining the vessel.

Firefighting Equipment Check      e. Firefighting Equipment Check. During annual TVE, biennial LOC examinations, and mid-periods, review the vessel's fire control plan and note the adequacy and condition of firefighting equipment. Check the fire stations to ensure that there are hoses, extinguishers, fixed CO<sub>2</sub> systems, and other firefighting equipment on the vessel as indicated in the fire control plan and/or general arrangement plan. Examine the fire detection and sprinkler systems if applicable. During annual examinations, test the fire main and pumps by charging the system and witnessing the pressure at widely separated deck stations simultaneously. Do not spend the time to look at every station, but ensure the vessel's readiness to respond to a fire. Determine if international shore connections are provided where required.

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## Cargo Operations

- f. Cargo Operations. During annual TVE, biennial LOC examinations and mid-periods, check the following:
- (1) On Deck.
    - (a) Note the general condition of the cargo piping system and the manifolds, checking for non-permanent repairs and other irregularities;
    - (b) Check the materiel condition of the vent system, cargo handling system, VCS (if installed) and IGS (if required);
    - (c) Look for open cargo hatches, Butterworth plates, ullage openings, and vents, making sure flame screens are installed or the openings are supervised; and
    - (d) Examine all closure mechanisms for cargo tank hatches, ullage openings, sounding ports, tank cleaning openings and any other openings that maintain the seaworthy condition of the vessel.

## Pollution Prevention Equipment Check

- g. Pollution Prevention Equipment Check. During annual TVE, biennial LOC examinations, and mid-periods, conduct a thorough check for compliance with the Pollution Prevention Regulations (33 CFR 155, 156 and 159), Tank Vessel Regulations (33 CFR 157), and MARPOL Regulations (Annexes I, II and V) [See 33 CFR 151 and COMDTINST M16450.30 for further guidance]. During annual examinations and biennial LOC examinations, this should be an in-depth look at the vessel pollution prevention requirements including examination of SBT, CBT, IGS, tank cleaning systems, crude oil washing (COW) system, cargo transfer systems, fuel and lubricating oil systems, waste oil and noxious liquid substances (NLS) handling systems, transfer procedures, garbage handling procedures, declarations of inspection, and marine sanitation devices. The following items should be examined:

## On Deck

- (1) On Deck.
  - (a) Look at the cargo small discharge containment and visually check the capacity. Have someone demonstrate the mechanical means of closing scuppers and drains in the containment, and look for the means of draining or removing discharged product from the containment;
  - (b) Look at the fuel and bulk lubricating oil discharge containment and visually check the capacity (i.e., 1/2 barrel 300-1600 gross tons, 1 barrel over 1600 gross tons, 5 U.S. gallon portable container for 100-300 gross tons and 100 gross tons or over constructed before July 1974);

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- (c) Sight the bilge slops piping outlet (1,600 gross tons and above, on each side of the weather deck; below 1,600 gross tons, accessible from the weather deck) and make sure the vessel has a means on the weather deck near the discharge outlet to stop each discharge;
- (d) Verify that the vessel meets requirements for ballast discharge if it ballasts fuel tanks;
- (e) Locate the emergency shutdown system and, if possible, have it activated to ensure proper operation;
- (f) Check the vessel's required transfer communications (continuous two-way voice between persons-in-charge of the transfer operation) and ensure that they are intrinsically safe;
- (g) Visually inspect required deck lighting at the transfer point and transfer operation work area;
- (h) The minimum design burst pressure for each hose assembly must be at least four times the sum of the pressure of the relief valve setting (or four times the maximum pump pressure when no relief valve is installed) plus the static head pressure of the transfer system, at the point where the hose is installed.  
  
The maximum allowable working pressure (MAWP) for each hose assembly must be more than the sum of the pressure of the relief valve setting (or the maximum pump pressure when no relief valve is installed) plus the static head pressure of the transfer system, at the point where the hose is installed;
- (i) Verify that each hose is marked with the required information;
- (j) Note if vessel security is maintained; and
- (k) Sight the required "Discharge of Plastic and Garbage Prohibited" placard.

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*Engine Room*

- (2) In Engine Room.
- (a) Sight the oil-water separator and check the certification label for a Coast Guard approval number or IMO specification label (MARPOL 73/78);
  - (b) Check the bilge continuous monitor for an approval number or IMO specification label and sight the recording tape;
  - (c) Check and operationally test the discharge alarm system;
  - (d) Sight the "Discharge of Oil Prohibited" placard required to be in each machinery space, bilge and ballast pump control station;
  - (e) Verify that the vessel is equipped with an operable U.S. Coast Guard or MARPOL IV certified marine sanitation device (MSD); and
  - (f) Check the bilges for presence of oil or hazardous material.

*Cargo Control Area*

- (3) In Cargo Control Area.
- (a) Verify that the vessel has a list of designated persons-in-charge for each type of transfer operation (fueling and each product).
  - (b) Examine in depth the transfer procedures. Ensure that:
    - They are legibly printed in a language understood by personnel engaged in the transfer operations;
    - They are permanently posted or available where they can be easily seen and used by crewmembers;
    - There is a list of each product transferred (generic name, cargo information, applicability of transfer procedures);
    - There is an accurate description of each transfer system on the vessel (including a line diagram, the location of the shutoff valves, description of and procedures for emptying the discharge containment system);
    - There is an accurate description of each vapor control system installed on the vessel;
    - The number of persons required to be on duty for transfer is indicated with the duties, by title, of each person required for each transfer operation;

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- There are procedures and duty assignments for tending the vessel's moorings during transfer;
- There are procedures for operating the emergency shutdown and transfer communications, topping off tanks, ensuring that all valves used during the transfer operation are closed on completion of the operation, and reporting fuel or cargo discharges;
- Any exemptions or alternatives granted are located in the front of the transfer procedures; and
- Any amendments have been incorporated.

(c) Confirm that the emergency shutdown is operable from the cargo control area.

(d) Confirm that the IGS functions properly.

*General*

(4) General.

- (a) Look for potential spark/ignition sources, particularly from electrical equipment;
- (b) Determine if the vessel has a capacity to retain all oily waste and oily bilge slops generated while operating in U.S. waters; and
- (c) Check to see that no oil or hazardous material is carried in prohibited spaces.

*In Pumproom*

(5) In Pumproom.

**CAUTION – SAFETY NOTICE: Prior to Entry into a Pumproom, Ensure that the Space is Certified "SAFE FOR WORKERS" by a Marine Chemist if the vessel is Carrying any Subchapter O products or Subchapter D products that have an established TLV!**

- (a) Ensure that the ventilation system is properly operating (should operate a minimum of 15 minutes prior to entry);
- (b) Check for potential sources of ignition and fire hazards in or near the pump room, including oil or hazardous material in bilges, excessive vapors, rags, paint, cleaning solvents, unsealed bulkhead penetrations or openings, etc.;
- (c) Look for loose wiring and use of drop cords and other electrical sources of ignition (lighting fixtures and electrical appliances should be explosion proof); and

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(d) Check pumps for leaking oil (other than gland lubrication) or hazardous material.

- Abandon Ship Drill      h. Abandon Ship Drill. An abandon ship drill is to be witnessed by the boarding team during annual examinations. Refer to the guidance provided in Chapter 5.C.7.h.
- Fire Drill      i. Fire Drill. A fire drill is to be witnessed by the boarding team during annual examinations. The ability of the crew to respond to emergencies is witnessed during the drill. All crewmembers should participate except for those engaged in cargo operations or on watch in machinery spaces. One suggested method of conducting the fire drill is to choose a specific location in the vessel (cabin, paint locker, storage room, etc.) for a simulated fire.
- Conducting the Drill      (1) Conducting the Drill. Have a crewmember go to the location and activate the manual fire alarm system. Observe the alarm indication on the fire alarm panel and the responses of the vessel's officers. A normal procedure is to send an officer or fire patrolman to investigate. Go to location and describe the fire indication (smoke, flames, etc.) to the investigator. Observe how the report of fire is relayed to the bridge or damage control center. At this point most vessels will sound the crew alarm to summon the firefighting parties and the remainder of the crew to their stations. Observe the firefighting party arriving on scene, breaking out their equipment and fighting the simulated fire. Team leaders should be giving orders as appropriate to their crews and passing word back to the bridge or damage control center on the conditions. The firefighting crews should be observed for proper donning and use of their equipment. Make sure that all of the gear is compatible; e.g., the breathing apparatus can be worn with the protective suit, the helmet can be worn with the air mask and the lifeline can be attached to breathing apparatus or belt. Merely mustering the emergency crews with their gear is NOT acceptable.
- Steering      j. Steering. Steering gear failures on all classes of foreign vessels have caused serious marine casualties and pollution incidents in U.S. waters. The steering system shall be tested annually by a marine inspector. The tests should include the following:
- (1) Operationally check the main and auxiliary steering from each remote steering gear control system and each steering position on the navigating bridge;
  - (2) Test the main steering gear from the emergency power supply;
  - (3) Check the reading on the bridge gyrocompass against the repeater on the after steering room;

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- (4) Check the rudder angle indicator in the after steering room, it should have the same reading as the indicator on the bridge;
- (5) Test each remote steering gear control system power failure alarm and each steering gear power unit failure alarm;
- (6) Check for full movement of the rudder according to the required capabilities of the steering gear;
- (7) Test operation of the means of communication between the navigating bridge and the steering gear compartment;
- (8) Visually inspect the steering gear and its connecting linkage; and
- (9) Check for indications of potential failures involving excessive leakage of hydraulic fluid; looseness in connections, fasteners, or couplings; frayed electrical wiring or evidence of arcing; unusual noises during operation; or evidence of insufficient maintenance. Examples of the latter include jury-rigged repairs, painted over lube fittings, and deficient maintenance that might adversely affect operation of the steering gear.

Emergency Towing  
Arrangements

- k. Emergency Towing Arrangements. SOLAS V/15-1 requires all tankers of 20,000 DWT and above to have an emergency towing arrangement fitted at both ends of the vessel. The design and construction shall be approved by the flag Administration.



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7. **Expanded Examination** During any annual TVE, biennial LOC examination, mid-period or deficiency follow-up, the boarding team should expand their examination of a vessel if their examination establishes "clear grounds" for believing that the condition of a vessel, its equipment, or crew do not correspond substantially with the particulars of the certificates. Expanded examinations should focus on those areas where "clear grounds" have been established and should not include other areas or systems unless the general impressions or observations of the boarding team support such examination.
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## D. MONITORS

Monitors should occur in conjunction with either an annual TVE, biennial LOC examination, mid-period or deficiency check whenever cargo, bunkering or lightering operations are occurring concurrently with the boarding. We should not board vessels for the purpose of conducting a monitor unless we also intend to conduct either an annual examination, biennial LOC examination, reexamination or deficiency check. Generally the examination or reexamination should commence first with the examination of documents. However, if the transfer is in progress when you arrive, you may want to start with the monitor, particularly if the transfer is near completion.

- 1. Procedures for Conducting a Bulk Liquid Monitor** If a bulk liquid transfer is in progress, meet the person-in-charge and observe the cargo (or bunker) transfer operation. Concentrate on procedures, personnel training, and other human factors that influence the transfer operation. Boarding teams must be careful to avoid possible acute exposure to vapors during cargo operations, especially around vents and ullages. Team members should always have an escape route in mind in case of an emergency. At a minimum, the boarding team shall do the following:

In Cargo Control  
Area

a. In Cargo Control Area.

- (1) Determine the current status of the transfer operation. Ensure that the person-in-charge is at the transfer site or immediately available and has a copy of the vessel's transfer procedures;
- (2) Review the vessel's transfer procedures and spot check to see if they meet the requirements of 33 CFR 155.750. For example, see if the person-in-charge is on the person-in-charge list in the transfer procedures;
- (3) Ensure that the product being transferred is listed in the transfer procedures product list;
- (4) Determine if there are adequate communications between the persons-in-charge and that the means of communications is intrinsically safe;
- (5) Ask to see the Declaration of Inspection for the transfer, note if it is completely filled out and signed by both persons-in-charge (vessel and facility or both vessels), and look into any items not properly completed or checked off on the Declaration of Inspection;
- (6) Check to see if the transfer system is properly aligned to allow the flow of product and that unnecessary portions of the system are secured. Ensure that overboard discharge and sea suction valves are secured (except as required for ballast);

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- (7) Ensure that transfer limitations within the transfer procedures are not being violated (for example, if only two tanks are allowed to be loaded at the same time, no more than two tanks are being loaded); and
- (8) Check to see that all persons required to be on duty for the transfer are at their required locations, awake, coherent, attentive, not under the influence of alcohol or drugs, and familiar with their duties.

## On Deck

## b. On Deck.

- (1) Determine if the transfer hose in use is in good condition (no visible kinks, bulges, gouges, cuts, or other defects);
- (2) Verify that a fixed hose connection (bolted, full threaded or accepted quick-connect coupling) or automatic back pressure shutoff nozzle is being used;
- (3) Ensure that hoses and loading arms are long enough for the vessel to move within the limits of its moorings without causing a strain during the transfer;
- (4) Ensure that the required discharge containment is in place. The fixed containment or drip pan should be clean (free of standing water or product) and have a means of draining or removing spilled cargo. [Note: It is not necessary to measure the containment unless obviously inadequate.];
- (5) Verify that containment drains and deck scuppers are plugged;
- (6) Ensure that flame screens in vents and in ullage holes are of the correct mesh and are not torn or blocked;
- (6) Check open cargo hatches and ullage holes for proper supervision;
- (7) Look for open flames, exposed wiring, welding, cutting, or other ignition sources;
- (8) Ensure that the transfer area lighting is adequate (if required); and
- (9) Check for availability of protective clothing and respirators when required under 46 CFR 153 and 46 CFR 154.

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**CHAPTER 6: PROCEDURES APPLICABLE TO FOREIGN TANK VESSELS****E. LETTER OF COMPLIANCE (LOC) AND CARGO ENDORSEMENT FOR FOREIGN CHEMICAL AND LIQUEFIED GAS TANK VESSELS**

Title 46 U.S.C. 3711 requires a foreign vessel carrying a Subchapter O cargo to possess a LOC endorsed to allow carriage of that cargo. Until the new LOC form is developed, LOC Form CG-2832A shall be used. Vessels carrying cargoes regulated under 46 CFR Subchapter O, Parts 150 through 154 must comply with these laws. Chemical tank vessels are regulated under 46 CFR Part 153 and liquefied gas vessels under 46 CFR Part 154. The LOC card is issued by the OCMI after a satisfactory LOC examination of the vessel. A foreign chemical or liquefied gas tankship entering U.S. waters must have an IMO Certificate of Fitness (COF) on board. An IMO COF is issued by the flag state, usually through a classification society, and attests to compliance with the IMO Codes. The IMO COF includes a list of cargoes authorized to be carried by the flag administration. The LOC is endorsed to allow carriage of these cargoes in U.S. waters. For chemical tank vessels with an IMO COF issued by a flag state signatory to MARPOL 73/78, the OCMI's signature on the LOC card constitutes the cargo endorsement required by 46 U.S.C. 3711. For non-MARPOL signatory chemical vessels and all liquefied gas vessels, the cargo endorsement includes the OCMI's signature on the LOC card and a Subchapter O Endorsement (SOE). The SOE for these vessels will be loaded into MSIS by the Marine Safety Center and will be issued to the vessels by the OCMI upon satisfactory completion of the LOC exam. Questions, comments and information concerning the Subchapter O Endorsement should be directed to the Marine Safety Center.

**1. Chemical Tank Vessels with Flag State Signatory to MARPOL 73/78**

Application for a LOC and cargo endorsement under 46 CFR 153.9(a) is made directly to the cognizant OCMI. A review of the IMO COF by the Marine Safety Center prior to the OCMI's LOC examination is not necessary. The LOC will be valid for a period of two years as long as the vessel has a valid COF. The expiration date will not be affected by changes in the expiration date or reissuance of the IMO COF.

**Evidence of Compliance**

- a. **Evidence of Compliance.** A valid IMO COF issued in accordance with the International Code for the Construction and Equipment of Ships Carrying, Dangerous Chemicals in Bulk (IBC Code) or the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code) (IMO Resolution A.212(VII), as amended) is accepted as evidence that the vessel is in compliance with international standards approximating Coast Guard regulations. The IBC Code applies to chemical vessels constructed on or after 1 July 1986 and the BCH Code applies to vessels constructed before this date. MARPOL 73/78 Annex II, Regulation 13, makes both the IBC Code or the BCH Code mandatory for chemical tank vessels. Because the IMO Codes are mandatory, compliance with either the IBC Code or the BCH Code, as applicable, will satisfy the requirements of 46 CFR 153 with the following exceptions:

- (1) 46 CFR 153 Subpart C (Operations) applies to all foreign chemical vessels;

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- (2) 46 CFR 153.370, 153.371 and 153.438 applies to a foreign tank vessel transporting a cargo with a vapor pressure that exceeds 100 kPa absolute at 37.8 deg C (See 153.9(a)(2)); and
- (3) 46 CFR 153.530(b), (d), and (p)(1) applies to a foreign tank vessel transporting alkylene oxides (See 153.9(a)(1)).

## Cargo Endorsement

- b. Cargo Endorsement. The signature of the OCMI on the LOC card will be the only endorsement necessary under 46 CFR 153.900 (a)(3). A separate SOE document for MARPOL signatory chemical tankships is not required. An IMO COF includes a list of cargoes authorized by the flag state to be carried under the SOLAS Convention. For a chemical cargo to be carried in U.S. waters, cargo carriage must be permitted by U.S. regulations (or tripartite agreement to which the U.S. is a party) and the cargo must be listed on the IMO COF. Separate documentation must be on board a vessel authorizing cargoes being carried under a tripartite agreement.

## Chemical Tank Vessel Information Sheet (CTVIS)

- c. Chemical Tank Vessel Information Sheet (CTVIS): The Marine Safety Center maintains a document called the "Chemical Tank Vessel Information Sheet." This document includes much of the general information and guidance that had been included in the previously required SOE document, and serves as a means for the Coast Guard to communicate with foreign chemical tank vessel owners and operators. Although not required, it is highly recommended this document be kept on board a foreign chemical tank vessel for reference and informational purposes.

**MSIS NOTE:** The CTVIS may be accessed from MSIS in the same manner as the SOE using the retrieve function and a generic VIN.

**EXAMPLE:** -MISOE,R,VIN=CG050741

## 2. Liquefied Gas Tank Vessels and Chemical Tank Vessels with Flag State NOT Signatory to MARPOL 73/78

The Marine Safety Center reviews LOC endorsement applications for all foreign liquefied gas tank vessels and those chemical tank vessels whose flag state is not signatory to MARPOL 73/78. Applications for a Letter of Compliance with Subchapter O endorsement should be sent to: Marine Safety Center (MSC-3), 400 7th Street, SW, Washington DC 20590-0001. The following sections describe in detail the contents of the endorsement application:

- 46 CFR 153.9b "Non-signatory" chemical tank vessels("new" and "existing")
- 46 CFR 154.22 "New" liquefied gas tank vessels
- 46 CFR 154.12 "Existing" liquefied gas tank vessels and barges

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Evidence of  
Compliance

- a. Evidence of Compliance. As evidence that the vessel is in compliance with international standards approximating Coast Guard regulations, the Marine Safety Center accepts a valid IMO COF issued in accordance with one of the following:
- (1) The Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH or IBC) (IMO Resolution A.212(VII), as amended);
  - (2) The Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IMO Resolution A.328(IX), as amended); or
  - (3) The Code for Existing Ships Carrying Liquefied Gases in Bulk (IMO Resolution A.329(IX)); or
  - (4) The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IMO Resolution MSC 5(48)).

The Marine Safety Center (MSC) performs plan review only on those chemical tankships whose flag administrations do not issue IMO COFs, on "existing" liquefied gas vessels constructed before the applicability criteria of 46 CFR 154, and on foreign unmanned barges for which no IMO Code presently exists.

Preparation of  
Subchapter O  
Endorsement

- b. Preparation of Subchapter O Endorsement. After accepting the LOC endorsement application, the Marine Safety Center prepares an SOE and loads it into MSIS. This endorsement identifies the IMO COF and any addendum accepted by the Marine Safety Center, describes by reference the hazardous cargoes authorized for carriage in U.S. waters, and states any special restrictions imposed. The SOE must be signed and dated by an OCMI when it is issued and must be kept aboard the vessel. A new SOE will be prepared when the vessel receives a new or amended IMO COF or, in the case of plan review vessels, when the authorized cargo list or special restrictions are changed. The SOE is valid only when attached to a valid LOC card and only when the referenced IMO COF is on board. For a plan review vessel, the Marine Safety Center notifies the owner when plan review is complete and indicates the cargoes and applicable restrictions which will be included in the SOE.

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3. Scheduling  
the**Examination  
for a LOC  
with Cargo  
Endorse-  
ment**

After the OCMI (for MARPOL signatory chemical tank vessels) or Marine Safety Center (all others) accepts a vessel's LOC endorsement application, the vessel's owner must request an examination. Procedures differ depending upon whether acceptance was based upon an IMO COF or Plan Review.

IMO Certificated  
Vessels

- a. IMO Certificated Vessels. An owner of a vessel accepted on the basis of an IMO COF (46 CFR 153.9(a) or 154.22), requests an examination by following the procedures in 46 CFR 153.809 or 154.151. The owner sends notification directly to the OCMI at the vessel's first U.S. port of call at least 7 days prior to the vessel's arrival, indicating date of vessel's arrival; name of the port; agent's name and telephone number; and the names of any cargoes on board. The owner must ensure that the vessel plans identified in 46 CFR 153.809(b) or 154.151(b)(3) are available on board the vessel at the time of the examination. When an examination request is received directly from an owner, the OCMI should ensure that the vessel's application is based on IMO certification rather than plan review. To ensure that the application is complete and current, the OCMI should consult the MSIS VFLD product set. The VFLD product lists the IMO certificates and addenda accepted and the dates of validity, the issue date of the Subchapter O Endorsement (if one exists) and the issue and expiration dates of the LOC, if any. For a vessel whose application is either incomplete or not current, or for a vessel for which the MSIS information is unavailable, the OCMI should notify the Marine Safety Center immediately to determine the proper course of action. If review of MSIS indicates that all aspects of the vessel's endorsement application are in order, a place and time for the examination should be arranged.

Plan Review  
Vessels

- b. Plan Review Vessels. An owner of a vessel accepted on the basis of Coast Guard plan review (i.e. a chemical tank vessel regulated under 46 CFR 153.9(b) or an "existing" liquefied gas tank vessel regulated under 46 CFR 154.12, requests an examination by notifying the Marine Safety Center 14 days prior to the vessel's arrival at a U.S. port. The Marine Safety Center notifies the cognizant OCMI of the examination request and forwards an "examination package" consisting of the vessel's plans, correspondence file, and completed Subchapter O Endorsement. Additional information concerning peculiar vessel characteristics, restrictions, or outstanding deficiencies from previous examinations may also be included. The final arrangements for the date and time of the examination are made by the OCMI directly with the vessel's local agent.

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## CHAPTER 6: PROCEDURES APPLICABLE TO FOREIGN TANK VESSELS

## 4. Procedures

**Applicable to Initial and Biennial Examinations of LOC Vessels**

In addition to the procedures applicable to an annual tank vessel examination, the initial and biennial examination of LOC vessels should include the following:

- a. If the Coast Guard accepted the vessel on the basis of plan review, the inspector should become familiar with the Subchapter O Endorsement, vessel plans, and other information provided by the Marine Safety Center, paying particular attention to any irregularities noted during plan review. Any questions should be resolved before the examination by contacting the Marine Safety Center. Particularly at the initial examination of a plan review vessel, the inspector should verify that the vessel is constructed and equipped in accordance with the accepted plans and applicable regulations.
- b. To examine an IMO certificated vessel, the inspector should use the Subchapter O Endorsement (if applicable), IMO certificate, and plans available on board to verify that the vessel complies with the IMO Code under which the certificate is issued.

**NOTE:** Vessels having IMO certificates may differ slightly from those governed by applicable Coast Guard regulations due to minor differences in interpretation of requirements by the flag administrations. Consult Coast Guard regulations implementing the IMO Codes or the Marine Safety Center if clarification of the intent of a particular IMO requirement is necessary.

- c. For every vessel, the inspector should ensure that the vessel is operated in accordance with any special restrictions contained in the Subchapter O Endorsement and the IMO certificate, if applicable.

5. Procedures  
**Applicable to Liquefied Gas Tank Vessels**

During annual examinations, biennial examinations or reexaminations of such vessels, the inspector should check the following additional elements:

- a. Operation of gas detection equipment and alarms;
- b. Temperatures, pressures, and concentration of gas or oxygen in interstitial and/or hold spaces;
- c. Seals and general condition of cargo tank relief valves;
- d. Condition of firefighting equipment and systems;
- e. Operation of quick - closing valves;
- f. Cargo tank high - level alarms; and
- g. Records of inert gas consumption on loaded voyages, if applicable.



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- 6. Updating LOC Information** The vessel owner must notify the Marine Safety Center whenever name, registry, ownership, or operator changes occur. For a vessel accepted on the basis of an IMO COF, a change of registry invalidates the IMO certificate and therefore invalidates the Subchapter O Endorsement (if applicable) as well. The owner is responsible for submitting copies of amended or updated IMO certificates to the Marine Safety Center. The Marine Safety Center will contact the OCMI at the vessel's next port of call so that it can be boarded and current conditions noted as necessary. At the discretion of the OCMI, a new LOC card may be issued or "pen and ink" corrections made to the current card. If a new LOC card is issued, the expiration date from the previous LOC card shall be used. Make an entry in the "Remarks" column of the Examination Record to indicate the action taken. If a vessel representative requests an amendment to the content of the Subchapter O Endorsement, the OCMI should contact the Marine Safety Center.

**7. Categories of Bulk Liquid Cargoes**

Cargoes Which Have Been Evaluated

- a. Cargoes Which Have Been Evaluated. Title 46 CFR Parts 153 and 154 include lists of those hazardous liquid cargoes considered to involve potential, unusual operating risks to life and property. A foreign vessel must have a properly endorsed LOC before it may carry the listed cargoes in U.S. ports. After evaluating a cargo for bulk carriage in self-propelled vessels, Commandant (G-MSO-3) places it in one of the following lists if bulk carriage will be permitted:

- (1) 46 CFR 30.25-1: List of Flammable and Combustible Bulk Liquid Cargoes (Subchapter D)
- (2) 46 CFR 153, Table 1: Bulk Liquid Hazardous Materials (Subchapter O)
- (3) 46 CFR 154, Table 4: Bulk Liquefied Gases (Subchapter O).

Cargoes Which Have Not Been Evaluated

- b. Cargoes Which Have Not Been Evaluated. In the event a shipper wishes to transport a cargo not included in one of these lists, Commandant (G-MSO-3) must be contacted for authorization (see 46 CFR 153.900(d) and 46 CFR 154.30). Coast Guard personnel finding a foreign vessel loading, discharging, or carrying cargoes which are not listed in or assigned to the lists referenced above, should notify the Marine Safety Center immediately. All inquiries regarding the classification of bulk liquid cargoes should be directed to Commandant (G-MSO-3).

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Cargoes Too  
Hazardous For Bulk  
Carriage

- c. Cargoes Too Hazardous For Bulk Carriage. Chemical cargoes that have been determined to be too hazardous to be carried in U.S. waters are:
- (1) Acrolein;
  - (2) Chlorine (on self - propelled vessels);
  - (3) Ethylenimine;
  - (4) Hydrofluoric Acid;
  - (5) Hydrogen;
  - (6) Hydrogen Chloride;
  - (7) Hydrogen Fluoride;
  - (8) Methylcyclopentadienyl Manganese Tricarbonyl;
  - (9) Nitric Acid (in concentrations greater than 70 percent);
  - (10) Nitrogen Tetroxide;
  - (11) Oxygen;
  - (12) Phosphorus Trichloride; and
  - (13) (beta) Propiolactone.
-

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## CHAPTER 6: PROCEDURES APPLICABLE TO FOREIGN TANK VESSELS

**F. CLOSING THE BOARDING**

Advise the master of all discrepancies noted, what corrective actions are required, and when those actions must be completed. The decision to impose operational controls should be made by the OCMI/COTP except in cases of imminent danger. The boarding team should be prepared to make appropriate recommendations to the OCMI/COTP regarding the actions to be taken on deficiencies. If the discrepancies make the vessel unsafe to proceed to sea, or an unreasonable risk to the environment, the OCMI/COTP should detain the vessel or terminate cargo operations under the provisions of the appropriate international convention, a Captain of the Port order, or a customs hold as appropriate. Discrepancies which do not make a vessel unsafe to proceed to sea, or an unreasonable risk to the environment, should be handled by requiring corrective measures to be accomplished within a specified time frame or prior to returning to the U.S. If time permits, assist in correcting simple problems (such as transfer procedures or maneuvering information) while on scene. Give the master (or mate) sufficient guidance to correct any outstanding problems. Provide the master a written record of the boarding that includes a listing of all discrepancies and the corrective actions required. If the vessel is detained, provide the master with a copy of the Detention Report (Refer to MSM II-D2, Annex A). The Detention Report should list only those deficiencies that must be corrected prior to departure.

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**G. POST-BOARDING ACTIONS**

As you depart the vessel, watch for any signs of pollution around the vessel and the facility (or other vessels) and any other unsafe situations. A brief monitor of the facility side of the operation should also be conducted before leaving the area for your next assignment or returning to the unit. After arriving at the unit, enter all information into the MSIS, including vessel file updates, boarding report, discrepancy reports, and operational controls. For the benefit of other MSO's, enter case information as soon as possible after return to the unit. In all cases, MSIS should be updated within 48 hours of completing a boarding. If the vessel is detained, follow the procedures in Chapter D2 of this volume for documenting the intervention.

1. **Issuance of Tank Vessel Examination Letter (TVEL)** At the completion of the annual examination of a tank vessel, a TVEL, Form CG-840S-1 (with an attached Enclosure, Form CG-840S-2, when applicable) shall be issued to the vessel's master. A copy shall be sent to the owner/operator and another shall be retained by the issuing unit. This letter shall be issued with the endorsement, "A full tank vessel safety examination has been completed, as required by 46 U.S.C. 3714. The vessel is considered safe for the carriage of (grade of cargo)." The letter shall be issued for a period of one year, with the expiration date recorded on the letter.

Issuance of TVEL  
to LOC Vessels

- a. Issuance of TVEL to LOC Vessels. A TVEL shall NOT be issued to a vessel which is issued a LOC. For such a vessel, the results of a biennial examination, mid-period or deficiency follow-up shall be entered in the Examination Record portion of LOC card. The grades of flammable or combustible cargo which the vessel is considered safe to carry shall be entered on the face of the LOC card in the space above the signature block. This endorsement should normally be made at annual examinations that coincide with initial and biennial examinations for issuance of a LOC.

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- 2. Issuance of Letter of Compliance (LOC) with Cargo Endorsement** Until a new COC form is developed, the OCMI shall use the LOC card (Form CG-2832A). After examining a foreign vessel to which 46 CFR 153 or 154 applies and finding it satisfactory, the OCMI issues an LOC card and references the current Subchapter O endorsement (if applicable) in the Examination Record on the LOC card. If only minor deficiencies exist, the LOC may be issued and suitable notation of the deficiencies made in the LOC card's Examination Record at the discretion of the OCMI. When the LOC is issued, the following action shall be taken.

- a. Enter all data called for on the LOC Card (Form CG-2832A).
- b. Enter the expiration date, which should always be two years from the date of the last biennial examination.

**NOTE:** The LOC expiration date entered is not determined by the IMO Certificate expiration date.

- c. Under "IMO Certificate," enter "None" or "See Subchapter O Endorsement," as appropriate.
- d. Under "Last LOC Examination," enter the date/location of the last complete examination. Usually, this will be the same as the date/location of LOC issuance.
- e. The face of LOC card shall be endorsed in the space above the signature block to indicate the grades of flammable or combustible cargo for which the vessel is suitable. The endorsement should read: "This vessel is considered safe for the carriage of grade (enter highest grade) and lower cargoes."
- f. The OCMI shall sign and date the LOC card.
- g. In the "Remarks" section of the LOC card's Examination Record, enter the results of the examination and, if applicable, refer to the current Subchapter O Endorsement issued by the Marine Safety Center as described in subparagraph MSM II-D6.G.8.a(1) below.
- h. The expired LOC card and a photocopy of the newly issued LOC card (including the Examination Record) shall be forwarded to the Marine Safety Center along with the report required by Section E.9 below.

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**3. Non-Issuance of LOC**

If the examination reveals that a vessel is unqualified for an LOC, take the following actions.

- a. Enter all required information on the LOC card with the exception of issue date, expiration date, and validating signature of the issuing officer.
- b. Enter the results of the examination into the "Examination Record" (or refer to an attached deficiency list).
- c. Endorse the face of the LOC card to indicate the grades of flammable or combustible liquids, if any, for which the vessel is suitable.
- d. Deliver the LOC card to the vessel's master with instructions to arrange for a reexamination after the deficiencies have been corrected. Also, instruct the master to present the form and any attached deficiency letters to the OCMI in the next U.S. port of call.
- e. If the Subchapter O Endorsement was issued on the basis of an IMO COF, it shall be left on board the vessel. If the Subchapter O Endorsement was issued on the basis of Coast Guard plan review, expeditiously return it to the Marine Safety Center with the examination set of plans, unless the master intends to proceed directly to another U.S. port to have the deficiencies cleared. In the latter case, notify the OCMI at the next port and forward the Subchapter O Endorsement and examination set directly to that OCMI.
- f. Notify the Marine Safety Center promptly by message [e-mail: [MSC-COC@msc.uscg.mil](mailto:MSC-COC@msc.uscg.mil)] of the action taken when the LOC is not issued.
- g. Enter the deficiencies in MSIS.

**4. Invalidation of the Subchapter O Endorsement**

If a vessel's endorsement for Subchapter O cargo becomes invalid, the vessel is NOT authorized to carry any of the cargoes listed in 46 CFR 153, Table 1 or 46 CFR 154, Table 4 in U. S. waters. The endorsement may become invalid for any of the following reasons:

- a. The IMO COF referenced in the Subchapter O Endorsement has expired;
- b. Change of vessel registry;
- c. Deficiencies in the cargo containment system or related safety systems which in the opinion of a Coast Guard marine inspector or boarding officer render the vessel unsuitable to transport Subchapter O cargo; or
- d. Expiration of the LOC.

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- 5. Expiration of IMO COF or Change of Vessel Registry**
- When a Subchapter O Endorsement references an IMO COF, the endorsement automatically becomes invalid if the COF expires; if the flag administration revokes, modifies, or reissues the COF; or if the vessel changes registry. Any change or addition to a COF, or issuance of a new COF, must be accepted by the Marine Safety Center, which will document acceptance by issuing a new or amended Subchapter O Endorsement. On "existing" liquefied gas vessels regulated under 46 CFR 154.12 and accepted on the basis of Coast Guard plan review, the Marine Safety Center may accept a COF for a limited number of cargoes (usually the "high vapor pressure chemicals," e.g., isoprene, propylene oxide). Therefore, when the COF expires, the Subchapter O Endorsement becomes invalid for the cargoes accepted based on the COF, but remains valid for the cargoes approved during plan review. For example, consider a vessel which the Coast Guard approved for ammonia, propane, and butane during plan review. Later the vessel receives an Existing Gas Code COF which, in addition to the three liquefied gas cargoes, lists isoprene. Accepting the COF only for isoprene, the Marine Safety Center places a statement in the Subchapter O Endorsement: "The vessel's COF is accepted for the carriage of isoprene only." If the COF expires, the vessel's Subchapter O Endorsement remains valid for ammonia, propane, and butane, but the vessel is not authorized to transport isoprene.

- 6. Action Required When COF is Invalid**
- If the COF is found to be invalid for a vessel arriving at a U.S. port, the Subchapter O Endorsement (but not the LOC) shall be invalidated by making the following entry in the "Remarks" column of the Examination Record of the LOC card: "Subchapter O Endorsement INVALIDATED this date." In the case of an existing gas vessel which underwent Coast Guard plan review, do not invalidate the Subchapter O Endorsement, but make an Examination Record entry prohibiting carriage of only those cargoes which were permitted based on the COF. The OCMI/COTP shall then:
- Instruct the master that the vessel is no longer authorized to carry some/all Subchapter O cargo in U.S. ports and explain that new certification must be submitted to the Marine Safety Center in order to have the authorization reinstated;
  - Notify the Marine Safety Center and the OCMI/COTP of the next U.S. port of call by message [e-mail: [MSC-COC@msc.uscg.mil](mailto:MSC-COC@msc.uscg.mil)] of the action taken; and
  - Enter a Vessel of Particular Interest (VPI) notice in MSIS stating the action taken and citing the reason.

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- 7. Action Required When Serious Deficiencies are Found**
- If a vessel is found to have serious deficiencies, it may be judged unsuitable for the carriage of Subchapter O or Subchapter D cargoes, or both, in U.S. ports. If both Subchapter O and Subchapter D cargoes are restricted from carriage, the LOC should be invalidated by making the following entry in the "Remarks" column of the Examination Record: " Letter of Compliance INVALIDATED this date." In other cases, the OCMI may wish to limit only the carriage of Subchapter O cargo by invalidating the Subchapter O endorsement or Subchapter D cargo by invalidating the Subchapter D endorsement. In any case:
- Enter the requirements for correction of the deficiencies in the "Remarks" column or refer to an attached letter.
  - Instruct the master that the vessel is no longer authorized to carry some/all cargoes in U.S. ports and that a reexamination must be arranged. The master must also present the invalid LOC and attached deficiency letter(s) to Coast Guard boarding teams at subsequent U.S. ports of call.
  - Notify the Marine Safety Center and the OCMI/COTP of the next port of call, by message [e-mail: [MSC-COC@msc.uscg.mil](mailto:MSC-COC@msc.uscg.mil)], of action taken.
  - Enter a VPI notice in MSIS stating the action taken and listing deficiencies found.
- 
- 8. Examination Record Entries**
- Entries shall be made in the "Examination Record" section of the LOC card (Form CG-2832A) following the initial examinations and each subsequent annual examination; biennial examination; reexamination incidental to repairs or alterations; deficiency follow-up boardings; or other boardings incidental to the amendment, invalidation or revalidation of the LOC or Subchapter O Endorsement.
- Nature of Entries**
- Nature of Entries.** Complete the "Type of Examination" block and enter the results of each examination or boarding in the "Remarks" column of the Examination Record. When deficiencies are found, they shall be listed along with corrective actions taken or required to be taken. Any requirements as to the type of repairs and time permitted for completion shall be included. For each deficiency which remains uncorrected, the OCMI/COTP shall specify a period of time in which the deficiency must be corrected (e.g., at next U.S. port of call, within 90 days, at completion of next drydocking, etc.). If a deficiency list is too extensive to enter on the Examination Record, an entry shall be made referring to a separate, attached letter. The master shall be instructed to keep the letter available for subsequent Coast Guard boardings. If the Examination Record section of the LOC card is filled, a second copy of the LOC card shall be attached to the original LOC card and its Examination Record section utilized for subsequent entries.



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- (1) Sample Entries. Some typical entries made in the "Remarks" section of the Examination Record are:
- (a) "Vessel examined for issuance of LOC - no deficiencies, LOC issued based on Subchapter O Endorsement issued by the Marine Safety Center and dated (enter date of Subchapter O Endorsement)."
  - (b) "Vessel examined for issuance of LOC, vessel found unsuitable for carriage of Subchapter O cargo, vessel may carry only Grade D and E combustible cargo until deficiencies in MSO Houston-Galveston letter dated 12 November 1995 are corrected."
  - (c) "Letter of Compliance INVALIDATED due to vessel deficiencies - see MSO Port Arthur letter dated 16 July 1995."
  - (d) "Routine safety boarding - incompatible cargoes stowed in adjacent tanks, corrected."
  - (e) "Vessel examined in accordance with 33 CFR 155, 156, and 164; 46 CFR 35; and SOLAS 74 - no deficiencies."
  - (f) "Letter of Compliance REVALIDATED this date - deficiencies noted in MSO New Orleans letter of 21 April 1994 satisfactorily corrected."

## 9. Reports of Examinations or Re-Examinations

- a. Send reports to the Marine Safety Center as indicated (e-mail: [MSC-COC@msc.uscg.mil](mailto:MSC-COC@msc.uscg.mil) may be used for letter reports):
  - (1) Examination for initial issuance of a LOC with a Cargo Endorsement or a biennial examination for reissuance (message or MSIS mailbox followed by a letter report);
  - (2) Special examination arranged through the Marine Safety Center concerning vessel modifications and repairs (message or letter report);
  - (3) Any action resulting in invalidation of Subchapter O Endorsement or LOC (message followed by letter report); or

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- b. Content of Reports. Reports of examinations resulting in the issue of a LOC should include the following:
- (1) Issue and expiration dates of the LOC.
  - (2) A photocopy of the newly issued LOC card including the Examination Record.
  - (3) Deficiencies found (indicate none, or send the list appearing on the Examination Record or a referenced deficiency letter).
  - (4) The expired LOC card and Subchapter O Endorsement.
  - (5) The OCMI should return any examination plan review set provided by the Marine Safety Center.

**10. Marine Safety  
Information  
System (MSIS)**

Tank vessel annual examinations, reexaminations, deficiency follow-up examinations, and monitors will be documented in MSIS by filing a Port Safety Activity Report (PSAR). Biennial LOC examinations must be documented by filing a Marine Inspection Activity Report (MIAR). To ensure the accuracy of the database used in making boarding decisions:

- a. The MIAR inspection type code "CLC" will be used to document biennial LOC examinations.
- b. The PSAR code "AES" will be used to document all annual tank vessel examinations.
- c. The PSAR code "DOCK" will be used to document all tank vessel reexaminations. This code will only be used when a physical boarding is performed. (Those units that update document data based on electronically provided information may use the code "INV NEC" when filling a PSAR to record that activity.)
- d. The PSAR codes "MSO" (Monitor Ship Oil), "OSL" (Monitor Offshore Lightering), "ISL" (Monitor Inshore Lightering), "MSD" (Monitor Dangerous Cargo), "MHG" (Monitor Hazardous Gas), "MBO" (Monitor Barge Oil) or "MBD" (Monitor Barge Dangerous Cargo) will be used to document all tank vessel monitors as applicable. These codes will NOT be used alone, but should be used in conjunction with either the "AES" or "DOCK" codes.
- e. The PSAR code "MAR" (MARPOL General) shall be included as an activity type on all boardings. Estimate the time spent by the boarding office checking MARPOL related items and enter it under the "ACTIVITY" column after "MARPOL GEN". Do not include marine inspector time.

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- f. Until a change can be made to the PSAR, the "PERS" column will be used to record the number of "ACTIVITY" work hours spent by marine inspectors on annual tank vessel examinations and reexaminations. All work hours will be rounded to the nearest tenth of an hour, with the exception of marine inspector "ACTIVITY" hours which will be rounded to the nearest hour. Marine Inspector preparatory time, travel time, administrative time and time on board should be included under the "PERS" column.
- g. No distinction needs to be made between marine inspector and port safety-boarding officer training hours in the PSAR. These hours will be combined under the applicable "TRAINING" column.
- h. The certificate code "NON" (none) will be used for all tank vessel annual examinations and reexaminations.
- i. Outstanding discrepancies and any significant discrepancies corrected during the boarding must be entered in the Port Safety Discrepancy Report (PSDR) product set.
- j. Update the Vessel File Involved Party (VFIP) product set if different from that observed aboard the vessel. If a vessel's classification society is not listed or differs from that shown in VFIP, enter the appropriate classification society using the Involved Party Numbers (IPN) listed in Chapter D4.B.3.e. of this volume. The "OWNER" indicated in the VFIP should match that indicated on the vessel's registry. The "OPERATOR" indicated in the VFIP should match that indicated on the vessel's Certificate of Financial Responsibility (COFR).
- k. The Vessel File List of Documents (VFLD) product set should be updated to reflect the status of the vessel's documents. If an annual examination or biennial LOC is conducted, ensure the next due date is entered. When a Subchapter O Endorsement is issued, the issuing office should change the issue date, port code, enter an expiration date, and change the status from "AMENDED" to "VALID." A Subchapter O Endorsement should expire on the same date as the LOC, unless the IMO Certificate of Fitness (COF) will expire before that date. In this case, the Subchapter O Endorsement expiration date will be the same as the expiration date of the COF.
- l. MSIS entries including deficiencies are to be entered into MSIS within 48 hours of completing a boarding.
- m. If a vessel is expected to arrive within another OCMI/COTP's zone of responsibility before MSIS can be updated, information regarding the boarding and any deficiencies or control action taken shall be relayed to the next port of call in the most expedient means available, (e.g. facsimile, telephone, E-mail etc.).

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Vessels of  
Particular Interest  
(VPI) Notice for  
Internal  
Examination of  
Structural Integrity

- n. Vessels of Particular Interest (VPI) Notice for Internal Examination of Structural Integrity. A VPI notice should be entered in MSIS after the annual examination of 10-year-old oil tankers to indicate the specific tank or space entered for the internal structural examination. A general indication of the results should also be included. Ideally, a different tank or space should be entered during subsequent exams to broaden the available information on the vessel. The expiration date of the VPI should be two years after the examination so as to maintain a reasonably current profile of the vessel's condition.

**EXAMPLE:** Figure D6-1 is an example of a completed PSAR for an annual examination including a monitor conducted by a senior marine inspector, boarding officer and a marine inspector (or boarding officer) trainee on a 10 year old chemical tanker completed in 4 hours.

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**FIGURE D6-1: Example of a Completed PSAR for an Annual Examination**

PSAR PORT SAFETY ACTIVITY REPORT 02JAN95  
CASE NUMBER/ PS95000001 PORT/ G-MOC ACTIVITY DATE/ 01JAN95 REF CASE/ .  
CARGO: NAME/ VARIOUS CHEMICALS TYPE/ HAZARDOUS CARGO, BULK LIQUID .  
OPERATION / OFFLOADING NEC DESC/  
LOCATION / CITY, STATE

BOARD TIME / 0330 HIGH PRIORITY?/ Y TEAM LEADER INITS/ JJS  
CERT ACTION/ NONE VALIDATE/ X CLOSE TO FILE/ .  
COMMENTS / COMPETED ANNUAL EXAMINATION.

SEL ---ACTIONS REPORTED ---  
1 NUMBER OF DISCREPENCIES / OUT?/ N LEGAL ACTIONS?/N  
2 VPI NOTICE / X  
3 OPERATIONAL CONTROL IMPOSED/  
4 NARRATIVE SUPPLEMENT /

#### VESSELS INVOLVED:

V/K VIN NAME FLAG SERVICE  
V L1234567 NEVERSAIL CY TANKSHIP  
#DIS/ OUT?/ LEG.ACT?/ LPC/ ROTDM NPC/ PHILA  
ACTIVITY TYPE(S)/ ANNUAL SHIP MON SHIP DC MARPOL GEN

#### FACILITY INVOLVED:

V/K FIN NAME CATEGORY LOCAL ID  
V GATXTERM GATX TERMINAL WATERFRONT FACILITY GRH0000001  
#DIS/ OUT?/ LEG.ACT?/  
ACTIVITY TYPE(S)/ MON SHIP DC

#### -----TOTAL TIME SPENT PER ACTIVITY-----

##### -----REGULAR-----

##### -----RESERVE-----

SUBJ	ACTIVITY TYPE	ACTIVITY TRAIN PERS	ACTIVITY TRAIN PERS	BOAT/AIRCRAFT
VI	ANNUAL SHIP	2.0	3.0	8
VI	MON PH HAZMAT	1.0		
VI	MARPOL GEN	1.0	1.0	1

ADMIN/ 8.0 ADMIN/  
TRAV/ 6.0 TRAV/

**CHAPTER 6: PROCEDURES APPLICABLE TO FOREIGN TANK VESSELS****H. GUIDANCE ON APPLICATION PROCEDURES AND THE LIMITED AUTHORITY TO CONDUCT OVERSEAS CERTIFICATE OF COMPLIANCE (COC) EXAMINATIONS**

There has been an increase in the number of foreign flag tank vessels lightering cargo inside the U.S. Exclusive Economic Zone (EEZ), but which never actually come close enough to a U.S. port for easy access. Most of this lightering is conducted more than 60 miles from the nearest shore, requiring Coast Guard boarding personnel to be flown out by helicopter in order to conduct the Certificate of Compliance (COC) examinations. This procedure exposes our Coast Guard personnel to substantial risk and forces the vessel owner to pay for expensive helicopter charters.

**1. Goal to Minimize Risk to CG Personnel & Facilitate Commerce**

This policy will minimize the risk to Coast Guard personnel while assisting vessel owner/operators by facilitating the required regulatory examinations of vessels identified in this guidance. Foreign flag tank vessel owners/operators whose vessels are engaged in offshore lightering may apply to the cognizant overseas USCG Officer-in-Charge, Marine Inspection (OCMI) (e.g., Far East Activities or Activities/MIO Europe) to have their COC conducted at an overseas port. The overseas OCMI may either approve or deny the application based on:

- a. Completeness of the application;
- b. The applicant meeting all the requirements for consideration as set forth in this document;
- c. The applicant remitting the applicable user fees as required by 46 CFR Part 2, and a written agreement from the owner/operator to pay all reimbursable expenses; and
- d. Availability of unit resources.

**2. Vessel Eligibility**

Vessels eligible for consideration are those:

- a. Whose current COC (Tank Vessel Examination Letter—TVEL, or Letter of Compliance—LOC) expires before initiation of the next cargo transfer in U.S. waters; or,
- b. That will be on its first voyage to the U.S.; or,
- c. Have recently come under either new ownership or re-flagging and need an initial COC; and
- d. That are under current charter agreement specifically indicating that the vessel will conduct lightering operations at a distance offshore that necessitates the

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use of charters to transport Coast Guard personnel to and from the vessel, or have a record of trading in this pattern.

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3. **Vessels Must Be Trading to U.S.** Under no circumstances are foreign vessel examinations to be conducted overseas based on the *potential* that a vessel *may* trade in the United States at some unspecified time in the future. Examinations will be conducted solely for the purpose of issuance of the applicable COC.

4. **Manner of Conducting Examinations** Overseas COC examinations will be handled in the following manner regarding the Coast Guard Port State Control (PSC) Boarding Matrix.

- a. The overseas COC will count towards the PSC Boarding Matrix boarding frequency history;
- b. Priority I and Priority II vessels may apply for an overseas COC, however, the vessel owner/operator is to be informed that the vessel may also be boarded prior to being allowed to conduct cargo operations in the U.S. The overseas OCMI is encouraged to consult with the intended lightering port's OCMI to coordinate the most effective and efficient action to take relative to these vessels;

**NOTE:** Vessels which are categorized as Priority II vessels solely due to the fact that their COC has expired will, by merit of having received a valid COC from the overseas OCMI, no longer be a Priority II vessel upon arrival in the U.S. EEZ.

- c. Priority III and IV vessel may apply without restriction.

5. **Notification of CONUS OCMI of Damages** Nothing in this instruction relieves the vessel of its requirement to notify the cognizant OCMI of any damages/casualties experienced during a voyage to the U.S. prior to arrival. It also does not preclude the CONUS OCMI's authority and responsibility to board vessels which experience damage between the time the COC is issued and the vessel's U.S. arrival, nor does it prevent the CONUS OCMI from making boardings outside the scope of this policy.



**CHAPTER 6: PROCEDURES APPLICABLE TO FOREIGN TANK VESSELS****6. Controlling Regulations**

Vessel examinations for accepted applications will be conducted in accordance with reference (a), the applicable portions of Titles 33 and 46 Code of Federal Regulations, and those controlling international treaties and conventions, and official Coast Guard policy, with the following modifications:

**Exceptions**

- a. Certain vessel requirements do not apply to vessels during either lightering or discharge-only operations. For those requirements which are not required due to the discharge/lightering only occupation of these "special case" vessels, an endorsement on the COC document must be made identifying the special restrictions. Similarly, the conditions of the restriction are to be noted in MSIS/MSN. *[For example: Overfill device requirements are only applicable to vessels loading cargo. Vessels being examined which do not have overfill devices installed will have their COC document (TVE or LOC) endorsed stating that the vessel is not in compliance with 33 CFR 155.480 and is restricted to only conducting lightering discharge operations while in the U.S. EEZ. Should the vessel at some future date enter a U.S. port for loading cargo, the devices must be properly installed and a new TVE/LOC issued after a satisfactory examination is by the cognizant OCMI.]*

**Deficiencies**

- b. Deficiencies issued during the examination will be in accordance with MSM Vol. II, A3-C-3(g). Priority 1 deficiencies would preclude the issuance of a TVE/LOC. Priority 2 deficiencies would include deficiencies that would have to be cleared before conducting cargo operations or may be cleared by written statement from the vessel Master in accordance with OCMI direction. For vessels examined under this policy it may be in the best interest of all parties—USCG and vessel owner/operator—to clear only Priority II requirements requiring a Coast Guard boarding, before departing for the U.S.
  - (1) Vessels whose deficiencies are categorized as Priority 1 (i.e., preclude transfer in the U.S. EEZ) must clear these deficiencies before a COC document will be issued.
  - (2) Vessels whose deficiencies are categorized as Priority 2 may clear these deficiencies through a suitable arrangement specified by the OCMI.

**CHAPTER 6: PROCEDURES APPLICABLE TO FOREIGN TANK VESSELS**

**7. MSIS**

The Marine Safety Information System, and its successor database, is to be updated upon conclusion of the COC exam, including *Inspection Notes*, and all special restrictions.

**8. User's Fees & Reimbursable Expenses**

The appropriate fees incurred by this inspection are:

- a. 46 CFR 2.10-120; Overseas Inspection Fee
- b. 46 CFR 2.10-125; TVE Fee
- c. Reimbursable travel expenses